תרגיל בית 2

234124 - מבוא לתכנות מערכות

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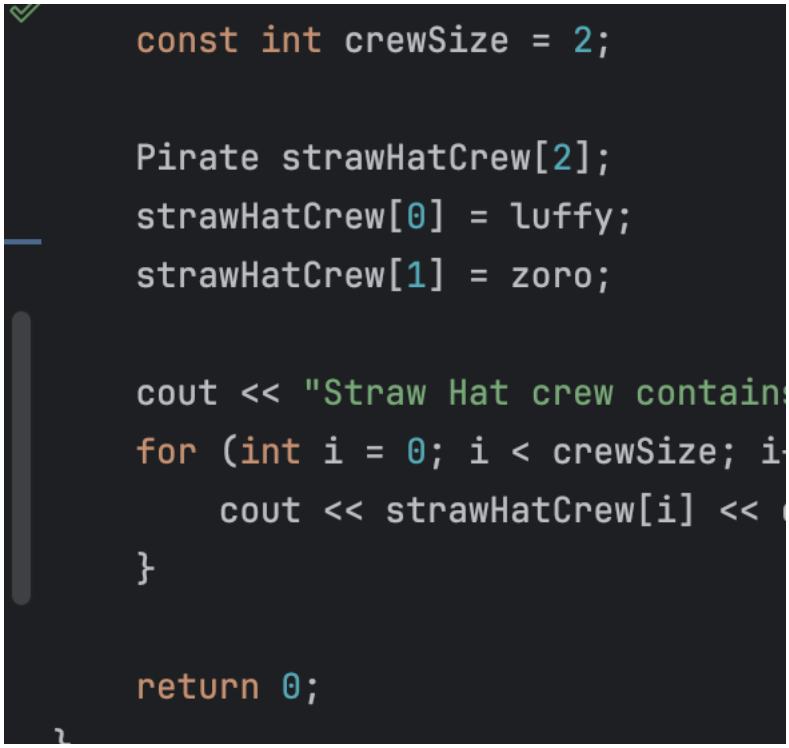
3.2 תיקון שגיאת קומפילציה

הקוד שהיה הוא כזה :



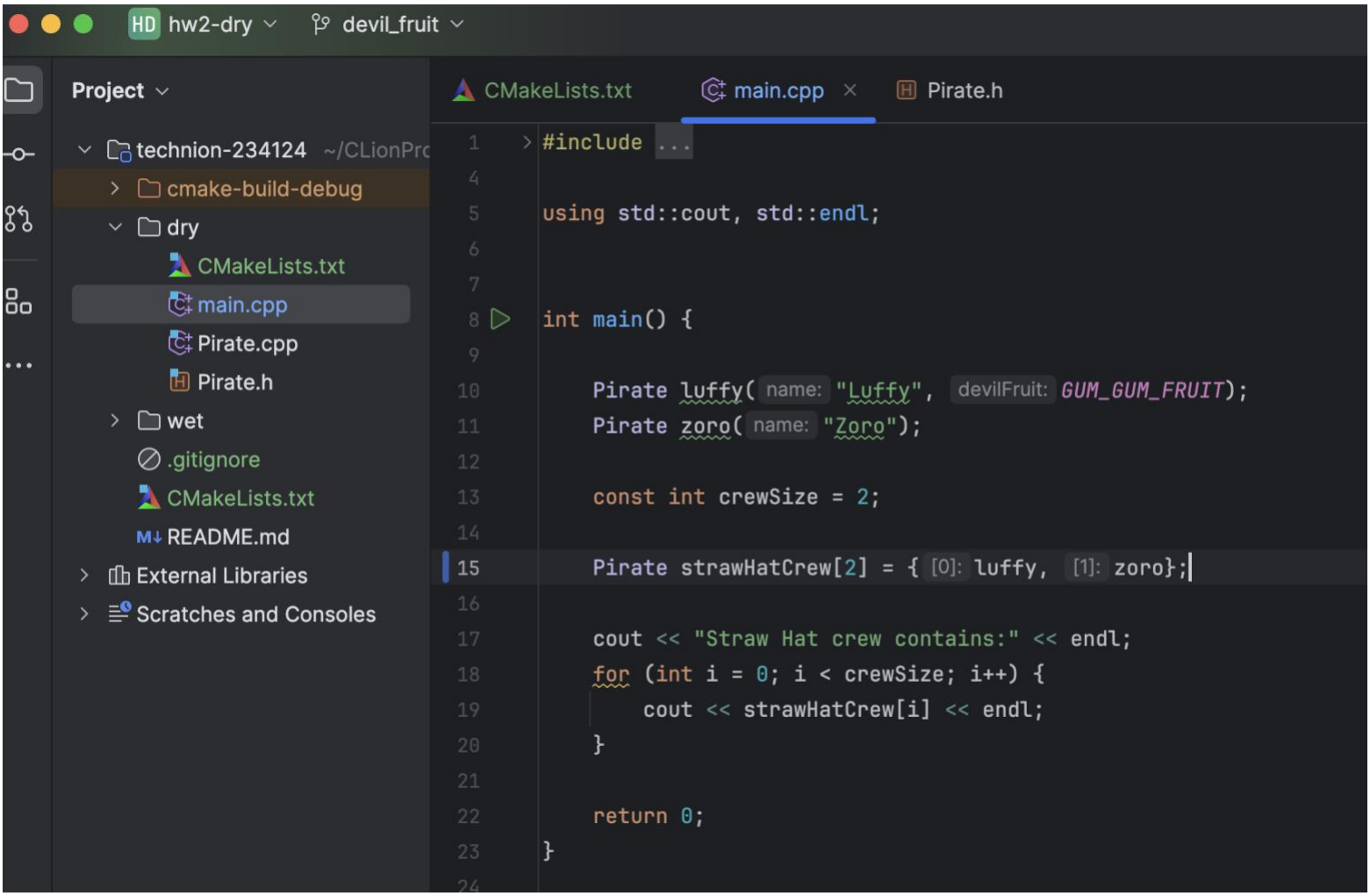
```
const int crewSize = 2;

Pirate strawHatCrew[2];
strawHatCrew[0] = luffy;
strawHatCrew[1] = zoro;

cout << "Straw Hat crew contains
for (int i = 0; i < crewSize; i
    cout << strawHatCrew[i] <<
}

return 0;
```

The compiler creates a default constructor for classes that don't have a constructor, but the class pirate has a constructor that's why it didn't create a default for it,
For us to solve this problem we could change in the document "pirate.h" by adding "pirate();", but since the change must be done in the document "main.cpp", we could replace the given code with this one, that leads to the same result:


hw2-dry
devil_fruit
Project
technion-234124 ~/CLionPro
cmake-build-debug
dry
CMakeLists.txt
main.cpp
Pirate.cpp
Pirate.h
wet
.gitignore
CMakeLists.txt
README.md
External Libraries
Scratches and Consoles
CMakeLists.txt
main.cpp
Pirate.h
#include ...
using std::cout, std::endl;
int main() {
Pirate luffy(name: "Luffy", devilFruit: GUM_GUM_FRUIT);
Pirate zoro(name: "Zoro");
const int crewSize = 2;
Pirate strawHatCrew[2] = { [0]: luffy, [1]: zoro};
cout << "Straw Hat crew contains:" << endl;
for (int i = 0; i < crewSize; i++) {
cout << strawHatCrew[i] << endl;
}
return 0;
}

3.4 מיזוגBranches וקונפליקטים

Those are the changes that have been made with merge after conflicts
This is extra to show the merge that we did, you could see it all in the log.txt

```cpp
#include ...

using std::cout, std::endl;


int main() {

    Pirate luffy( name: "Luffy", bounty: 1000000);
    Pirate zoro( name: "Zoro", bounty: 500000);

    const int crewSize = 2;

    Pirate strawHatCrew[2] = { [0]: luffy, [1]: zoro};

    cout << "Straw Hat crew contains:" << endl;
    for (int i = 0; i < crewSize; i++) {
        cout << strawHatCrew[i] << endl;
    }

    return 0;
}
```

24 dry/Pirate.cpp

```
@@ -2,14 +2,19 @@
 #include "Pirate.h"


-Pirate::Pirate(const string& name, int bounty): name(name), bounty(bounty) {}


 void Pirate::setName(const string& name){
     this->name = name;
 }


 std::string Pirate::getName(){
     return name;
 }
@@ -23,8 +28,23 @@ int Pirate::getBounty() {
 }
```

```
 #include "Pirate.h"


+Pirate::Pirate(const string& name, int bounty, DEVIL_FRUIT devilFruit): name(name), bounty(bounty), devilFruit(devilFruit) {}


 void Pirate::setName(const string& name){
     this->name = name;
 }


+void Pirate::setDevilFruit(DEVIL_FRUIT devilFruit){
+    this->devilFruit = devilFruit;
+}
+
+

 std::string Pirate::getName(){
     return name;
 }


 }


+DEVIL_FRUIT Pirate::getDevilFruit(){
+    return devilFruit;
+}
+
+
+const char* const devilFruitNames[] = {
+    "Gum Gum",
+    "Smoke Smoke",
+    "Flame Flame"
```

```
26  std::ostream &operator<<(std::ostream &os, const Pirate &pirate){
27  -     os << pirate.name;
28        os << pirate.bounty;
29        return os;
30  }
```

```
46  std::ostream &operator<<(std::ostream &os, const Pirate &pirate){
47  +     os << pirate.name << " (Devil Fruit: " << devilFruitNames[pirate.devilFruit] << ")";
48        os << pirate.bounty;
49        return os;
50  }
```

15 ■■■■ dry/Pirate.h

```
@@ -5,20 +5,33 @@
5
6   using std::string;
7
8   class Pirate {
9   private:
10      string name;
11      int bounty;
12
13
14  public:
15  -     Pirate(const string& name, int bounty);
16
```

```
5
6   using std::string;
7
8   + enum DEVIL_FRUIT {
9   +     GUM_GUM_FRUIT,
10  +     SMOKE_SMOKE_FRUIT,
11  +     FLAME_FLAME_FRUIT,
12  +     RUMBLE_RUMBLE_FRUIT,
13  +     STRING_STRING_FRUIT,
14  +     ICE_ICE_FRUIT,
15  +     NONE
16  + };
17  +
18  class Pirate {
19  private:
20      string name;
21      int bounty;
22
23  +     DEVIL_FRUIT devilFruit;
24
25  public:
26  +     Pirate(const string& name, int bounty,DEVIL_FRUIT devilFruit = DEVIL_FRUIT::NONE );
27
```

```
16
17      ~Pirate() = default;
18
19      void setName(const string& name);
20
21  +   string getName();
22
23
24      void setBounty(int bounty);
```

```
27
28      ~Pirate() = default;
29
30      void setName(const string& name);
31  +   void setDevilFruit(DEVIL_FRUIT devilFruit);
32
33      string getName();
34  +   DEVIL_FRUIT getDevilFruit();
35
36
37      void setBounty(int bounty);
```

2 dry/main.cpp

```
@@ -7,7 +7,7 @@ using std::cout, std::endl;
7
8   int main() {
9
10  -   Pirate luffy("Luffy", 1000000);
11      Pirate zoro("Zoro", 500000);
12
13      const int crewSize = 2;
```

```
7
8   int main() {
9
10  +   Pirate luffy("Luffy", 1000000, GUM_GUM_FRUIT);
11      Pirate zoro("Zoro", 500000);
12
13      const int crewSize = 2;
```

And this is the execution on the shell

```
C:\Users\jamal\CLionProjects\technion-234124\cmake-build-debug\dry\dry.exe
Straw Hat crew contains:
Luffy (Devil Fruit: Gum Gum) 1000000
Zoro (Devil Fruit: None) 500000

Process finished with exit code 0
```